Title: Analysis of Risk Factors for Cervical Lymph Node Metastasis of Papillary Thyroid Microcarcinoma: A Study of 268 Patients

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Reviewer: Fabrice MENEGAUX

Reviewer's report:

This is a paper aimed to analyze risk factors for cervical lymph node metastasis (CLNM) of papillary thyroid microcarcinoma (PTMC). The Authors retrospectively analyzed the clinicopathologic data of 268 patients over a period of 14 months.

Minor comments:
- Table 1: results for capsular invasion and extrathyroidal extension? (I suggest that "capsular invasion" should be deleted); How many lateral lymph node dissection (LND) were performed?
- Figure 1: "PTC" is probably PTMC; How can you exclude 78 non-PTMC among a group of 346 PTMC? Too many patients were excluded from the study, and the rate of incomplete data is very high.

Major comments:
- The sample size was quite small (268 patients).
- You had only 83 PTMC with multifocality, and 268 solitary PTMC. The rate of multifocality is usually higher. Could you explain?
- Definition of the studied population is not clear. "CLNM" means sometimes "cervical" LNM, and sometimes "central" LNM (page 9, line 7; or Table 1).
- How many patients were N1? 79 "cervical" or 88 (79 "central" + 9 "lateral")?
- What was the extent of thyroid resection: total thyroidectomy for all patients, or some patients had a lobectomy (the current recommended surgical procedure for microcarcinoma in most guidelines)?
- What were your indications for LND? If I understand well, you performed prophylactic central LND, and lateral LND only in case of "suspicious" LNM (page 8, line 47), where were the suspicious LNM, in the central and/or the lateral compartments?
- What is the proportion of patients with obvious N1 (therapeutic LND) among your patients? Your demonstration about the relationship between tumor size and the risk of N1 could especially be interesting in clinically N0 patients. Do you have this result?
- Did you exclude from the study PTMC diagnosed in the resected specimen (occult PTMC), that are very frequent? I understand that yes, since all your patients had a preoperative diagnosis of malignancy (positive cytology) (page 7, line 28). Could you give us the number of patients with occult PTMC who had surgery during the same period (and who were excluded from the study)? However, the range for maximum diameter of tumors included 1 mm. How is it possible to diagnose before surgery a PTMC of 1 mm in diameter? Please, explain.
Are the methods appropriate and well described?
If not, please specify what is required in your comments to the authors.

No

Does the work include the necessary controls?
If not, please specify which controls are required in your comments to the authors.

No

Are the conclusions drawn adequately supported by the data shown?
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